UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,015	07/03/2001	Hajime Kikkawa	01-166	9185

			EXAMINER
23400	7590	03/04/2005	TON, ANTHONY T

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ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/897,015	KIKKAWA ET AL.
	Examiner	Art Unit
	Anthony T Ton	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _03 July 2001_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-8_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _5_ is/are allowed.

6)☒ Claim(s) _1-3,6 and 7_ is/are rejected.

7)☒ Claim(s) _4 and 8_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _03 July 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

PHIRIN SAM
PRIMARY EXAMINER

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _10/6/03 and 7/3/01_.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Specification Objection

1.   The disclosure is objected to because of the following informalities:

a) Term "a second SR **sections**" in page 3, line 22 is improper.

Examiner suggests changing this term to "a second SR **section**".

b) Term "**the** bits" in page 9, line 25 is improper.

Examiner suggests changing this term to "**data** bits".

Appropriate correction is required.

Claim Objections

2.   **Claims 1, 3, 7** and **8** are objected to because of the following informalities:

a) **In Claim 1**: Term "each of the data **frame**" in line 4 is improper.

Examiner suggests changing this term to "each of the data **frames**".

b) **In Claim 3**: Term "if the identifier is **set.s**" in line 29 is improper.

Examiner suggests changing this term to "if the identifier is **set.**".

c) **In Claims 7** and **8**: Term "in claim **5**" in line 1 is improper since the claim 5 did not

claim **a method,** but the claim 5 claimed **a node,** in the mean while, claim 6 has claimed such a

method.

Examiner believes that this is a typographical error.

Examiner suggests changing this term to "in claim **6**".

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   **Claims 1, 3** and **6** are rejected under 35 U.S.C. 102(b) as being anticipated by *Sugimoto*

et al. (US Patent No. Re. 33,426) hereinafter referred to as *Sugimoto*.

a) **In Regarding to Claim 1**: *Sugimoto* disclosed a data relay unit for receiving and

sending data frames through a communication line *(see Fig.4)* comprising:

a plurality send/receive means for sending and receiving data frames *(see Fig.4: blocks*

14-1 and 14-2), each of the data frames being received by a first send/receive means which is

one of the send/receive means and sent by a second send/receive means which is another one of

the send/receive means *(see Fig.4 and col.6 lines 10-23)*;

an identifier setting means for setting an identifier which is a predetermined portion of

the data frame received by the first send/receive means to a value which represents that the

identifier is set before the data frame is sent by the second send/receive means *(see Fig.7: a first*

portion (a predetermined portion of a data frame) in sending parameter SP1 and SP2; and col.5

lines 6-24: it sets "1" for the relay indication flag RF (identifier)); and

a relay inhibiting means for checking whether the identifier of the data frame received by

the first send/receive means is set *(see Fig.8: block 21; and col.14 lines 24-34: judge means)* and

inhibiting the data frame from being sent by the second send/receive means if the identifier is set

(see Fig.10: YES in step 204, and NO in step 205).

b) **In Regarding to Claim 3**: *Sugimoto* disclosed all aspects of a data relay unit of this

claim as set forth in the claim 1; and

Sugimoto further disclosed a multiplex communication system comprising:

a plurality of networks each of which comprises a communication line and a plurality of

nodes connected to the communication line *(see Fig.1: R1-R3 (networks and communication*

lines) and A1-A6 (communication nodes), the nodes communicating each other by exchanging

data frames *(see col.4 lines 36-42: Source station A1 and Destination station A2; and col.4 line*

59-col.5 line 5: data frame), a predetermined portion of each of the data frames being assigned to

an identifier *(see Fig.7: a first portion (a predetermined portion of a data frame) in sending*

parameter SP1 and SP2, and RF (identifier)).

c) **In Regarding to Claim 6**: all subject matters of this claim are the same as that of

claim 1. Therefore, the rejections to the claim 1 would also apply to reject this claim in a method

as taught.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   **Claims 2** and **7** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Sugimoto*

et al. (US Patent No. Re. 33,426).

a) **In Regarding to Claim 2**: *Sugimoto* disclosed all aspects of this claim as set forth in claim 1; and

Sugimoto further disclosed

wherein a predetermined bit of a priority field of each data frame is assigned to the identifier as the predetermined portion of the data frame *(see Fig.7: a first portion (a predetermined portion of a data frame) in sending parameter SP1 and SP2; and col.5 lines 6-24: it sets "1" for the relay indication flag RF (identifier))*.

Sugimoto fails to explicitly disclose the priority field holds a priority which represents a level of priority which the data frame has over other data frames when the data frame is sent over a communication line.

However, *Sugimoto* inherently discloses this subject matter of the instant claim because *Sugimoto* discloses a relay flag RF in a data frame, wherein a received data frame is transmitted by the bridge station (relay unit) to the transmission line R2, the station judges whether RF =1 or 0. In the case, the RF =1, the data should be relayed by the station without changing the received data frame, and in the case the RF = 0, a received data frame, in which the address of a predetermined destination is set for destination address and the number of transmission line R2 and the address of the station are set for source address, is sent *(hence, with RF = 1 or = 0, it holds a priority level) (see col.5 lines 24-36)*; and

Sugimoto also fails to explicitly disclose the identifier is defined so that the priority of the data frame becomes higher when the identifier is set.

However, *Sugimoto* inherently discloses this subject matter of the instant claim because *Sugimoto* discloses a relay flag RF in a data frame, in the case the data frame is relayed by the

bridge station between transmission lines, the station sets the RF =1 *(hence, with RF= 1, it holds a higher priority level) (see col.5 lines 41-53)*.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skilled in the art can provide such subject matters of the instant claim throughout a bridge station such as B1 or B2, or even a node such as A1 to A6 and frames as shown in Figs.1 and 2 of *Sugimoto* as a design choice, the motivation being to relay data frames throughout a communication relay unit more efficient and the transmission throughput can be increased remarkably *(see col.3 line 20-21)*. Thus, it would have been obvious to implement such a bridge station of *Sugimoto* in the invention as specified in the claim.

b) **In Regarding to Claim 7**: all subject matters of this claim are the same as that of claim 2. Therefore, the rejection to the claim 2 would also apply to reject this claim in a method as taught.

Allowable Subject Matter

7.   **Claim 5** is allowed.

8.   **Claims 4 and 8** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Anthony T Ton** whose telephone number is **571-272-3076**. The examiner can normally be reached on M-F: 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chau Nguyen** can be reached on **571-272-3126**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

by: _____

Anthony T. Ton
Patent Examiner
February 25, 2005

PHIRIN SAM
PRIMARY EXAMINER